



MATERIAL SAFETY DATA SHEET
DEBUG HAND HYGIENE SOLUTION
(Chlorhexidine 0.5% in Isopropyl Alcohol 70%)

Page 1:4

1. Identification of the Product and Company

Product Name:	DEBUG HAND HYGIENE SOLUTION
Product Code:	CHL01856F, CHL01852F
Other Names:	None allocated
Use:	Hand hygiene solution.
Company Name & Contact Details	Drug Information Pharmacist ORION Laboratories Pty Ltd ABN 56 009 293 136 25-29 Delawney Street, Balcatta, Western Australia 6021 AUSTRALIA Telephone (all hours): +618 9441 7800 FREE PHONE: 1800 805 546 FREE FAX: 1800 004 110 EMAIL: customerservice@orion.net.au; WEBSITE: www.orion.net.au ORION® is a registered trademark of Orion Laboratories Pty Ltd
Other Information	All reasonable care has been taken to ensure information and advice contained in this data sheet is accurate at time of printing. However, Orion accepts no liability for any loss or damages suffered as a consequence of reliance on the information contained herein. Developed by Austin Health.

2. Hazards Identification

Hazard Classification	HAZARDOUS SUBSTANCE – DANGEROUS GOOD
Risk phrase(s)	R11 – Highly flammable; R20/22 – Harmful by inhalation and if swallowed. R36 – Irritating to eyes; R67 – Vapours may cause drowsiness and dizziness.
Safety phrase(s)	S7/9 – Keep container tightly closed and in a well ventilated place; S16 – Keep away from sources of ignition – no smoking; S23 – Do not breathe vapour; S29 – Do not empty into drains; S25 – Avoid contact with eyes; S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice; S33 – Take precautionary measures against static discharges; S45 – In case of accident or if you feel unwell seek medical advice immediately (show the label whenever possible.)

3. Composition/Information on Ingredients

Chemical Entity	CAS No:	Proportion
Isopropyl Alcohol (Isopropanol)	67-63-0	70% v/v
Chlorhexidine Gluconate	18472-51-0	0.5% w/v
Polyethylene Glycol 400	25322-68-3	< 10% w/v
Water, Purified	7732-18-5	to 100%

4. First Aid Measures

 If poisoning occurs, contact a doctor of Poisons Information Centre (Phone Australia 13 11 26)

Inhalation:	Remove patient to fresh air and seek medical advice if necessary. Apply artificial respiration if breathing stops.
Ingestion:	Rinse mouth with water and give plenty of water to drink. Seek medical attention. Do not attempt to induce vomiting or give anything by mouth to an unconscious person.
Skin:	Wash with water. Remove contaminated clothing. If irritation occurs seek medical advice. Launder clothing before re-use.
Eye:	Flush the eyes with gently running water for at least 15 minutes (hold eyes open). Seek medical attention promptly.
Advice to Doctor:	Treat symptomatically as for narcotic substance.

MATERIAL SAFETY DATA SHEET
DEBUG HAND HYGIENE SOLUTION
(Chlorhexidine 0.5% in Isopropyl Alcohol 70%)

Page 2:4

5. Fire Fighting Measures

Specific Hazards	Highly flammable liquid. May form flammable mixtures with air. Burns with a colourless flame. Vapour is heavier than air and may travel along the ground. Distant ignition is possible. Run off to sewers and drains may cause explosions. Avoid all ignition sources.
Extinguishing Media	Alcohol stable foam or water fog (large fires); carbon dioxide, dry chemical powder (small fires).
Hazards from Combustion products	Burning can produce carbon monoxide and/or carbon dioxide
Precautions & Equipment for Fire Fighters	On burning may emit toxic fumes. Remove containers from path of fire. Heating can cause expansion and rupture of containers. Keep containers cool with water spray. Fire fighters should wear self-contained breathing apparatus with full face mask if exposure to vapour or combustion products is likely. Vapour is heavier than air and may travel along the ground. Distant ignition is possible.
Hazchem Code	2[Y]E

6. Accidental Release Measure

Spills and Disposal	Eliminate all possible sources of ignition – no smoking. Take precautionary measures against static discharges. Ventilate area well. In case of large spills, wear protective clothing to prevent skin & eye contact and inhalation of vapours. Contain & absorb using inert material such as sand, earth, vermiculite where appropriate. Collect and seal in properly labelled containers for disposal. Wash area down with excess water. At very low concentration, this product is biodegradable.
----------------------------	--

7. Handling and Storage

Safe Handling Practices	UN number 1219. Classified 3 PGII (Highly Flammable Liquid). Dangerous substance for the purpose of transport. Refer to appropriate State Regulations for storage and transport requirements.
Storage	Should not be stored or transported with flammable gases, explosives, spontaneously combustible substances, oxidising agents, halogens, aldehydes or foodstuffs. Store away from sources of heat or ignition. Store below 25°C. Store in a well-ventilated area and keep containers closed, which are not in use, to avoid evaporation.

8. Exposure Controls; Personal Protection

Exposure Limits:	There are no known exposure limits for this product but the following Threshold Limit Values (TLV) for Isopropyl Alcohol 100% should be used: Isopropyl Alcohol TLV 400ppm (983mg/m ³) TWA, OSHA & ACGIH; 500ppm STEL, OSHA & ACGIH TWA Time-weighted average airborne concentration per 8 hour working day per 5 day working week over an entire working life. STEL Short term exposure limit - average airborne concentration per 15-minute period.
Engineering Controls	Local and or mechanical (general) exhaust, fitted with flame and explosion proof electrical fittings.
Personal Protection	Avoid eye contact. If spillage or splashing is likely to occur during handling, wear splash resistant goggles or face shield (AS/NZS 1336). Use protective gloves. Wash hands thoroughly after use. Do not smoke or eat whilst handling. Respiratory protection is not necessary under normal circumstances. Maintain concentration below recommended exposure limit and use adequate ventilation at all times. In high vapour concentration such (empty vessels, confined space), use air supplied hood, or if likely to exceed 500ppm, wear approved organic vapour respirator (AS/NZS 1715 and 1716)

MATERIAL SAFETY DATA SHEET
DEBUG HAND HYGIENE SOLUTION
(Chlorhexidine 0.5% in Isopropyl Alcohol 70%)

Page 3:4

9. Physical and Chemical Properties

Appearance and Odour:	A clear aqueous liquid that has a spiritous odour.
pH:	Not known
Vapour Pressure:	33mmHg at 20°C (Isopropyl Alcohol 100%)
Vapour Density:	2.1 (Isopropyl Alcohol 100%)
Boiling Point:	82.4°C (Isopropyl Alcohol 100%)
Freezing/Melting Point:	-89.5°C (Isopropyl Alcohol 100%)
Solubility:	Miscible
Specific Gravity or Density:	0.865- 0.885 g/mL
Flash point:	12°C (Isopropyl Alcohol 100%) tag closed cup

10. Chemical Stability and Reactivity Information

Conditions Contributing to Instability	Product is stable.
Incompatible Materials:	Will react with strong oxidising agents.
Conditions to Avoid:	Heat, sparks, flame and build-up of static electricity.
Hazardous Decomposition products:	Burning can produce carbon monoxide and/or carbon dioxide.

11. Toxicological Information

Inhalation:	Irritating to respiratory tract and mucous membranes. Inhalation of the vapour may cause coughing and chest discomfort. High concentrations of vapour may cause headache and drowsiness.
Ingestion:	Ingestion can lead to drowsiness, unconsciousness, abdominal discomfort, nausea, vomiting and diarrhoea.
Skin:	Skin sensitivity to chlorhexidine has occasionally been reported. Repeated or prolonged skin contact may cause irritation to people with sensitive skin.
Eye:	Vapour may irritate the eyes (at concentrations above 400ppm for 100% Isopropyl Alcohol), causing stinging and discomfort or pain. Liquid and mists may cause redness or corneal injury.
Acute toxicity (for 100% Isopropyl Alcohol)	LD50/oral/rat: 4396 mg/kg; LD50/dermal/rat: 12870 mg/kg; LC50/inhalation/rat: 72.6mg/l/4 h

12. Ecological Information

Mobility in soil:	No data available.
Persistence and Degradability:	Degree of elimination: >90%; Evaluation: readily biodegradable (100% Isopropyl Alcohol)
Ecotoxicity: (for 100% Isopropyl Alcohol)	Toxicity to fish (acute): LC50/fathead minnow: 1113 mg/l/96 h

MATERIAL SAFETY DATA SHEET
DEBUG HAND HYGIENE SOLUTION
(Chlorhexidine 0.5% in Isopropyl Alcohol 70%)

Page 4:4

13. Disposal Considerations

Disposal Methods & Containers: Waste material may be incinerated under controlled conditions where permitted. Refer to local Waste Management Authority Regulations for other approved methods. Empty containers should be decontaminated by rinsing with water prior to disposal.
 Product must be contained and not disposed of in sewerage systems, drains or waterways. Advise flammable nature.

14. Transport Information

UN Number: 1219
UN Proper Shipping Name: Isopropanol (Isopropyl Alcohol)
DG Class & Subsidiary Risk: 3
Packing Group: II
Hazchem Code: 2[Y]E

15. Regulatory Information

Poisons Schedule: Not scheduled

16. Other Information

References: *Iso Propanol MSDS-046, CSR 10/2008*
Hazardous Substances Information System – Consolidated Lists 31 July 2008 www.hsis.ascc.gov.au/searchHS.aspx

Checked by: Anna McLean	Date: April 2010
Approved by: Robert Kimpton	Date: April 2010

Date	Document	Superseded Document	Revision Information
20/09/2007	CHL01856_03 September 2007	CHL01856_2_MSDS October 2004	Name change (Section 1); Hazards Information (Section 2); Section 6 (Spills)
April 2010	CHL01856_04 April 2010	CHL01856_03 September 2007	General review

END OF MSDS